

REMARKS/ARGUMENTS

In view of the following remarks, the applicant respectfully submits that the pending claims are not anticipated under 35 U.S.C. § 102 and not unpatentable under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. **If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicant respectfully requests that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.**

The applicant will now address each of the issues raised in the outstanding Office Action.

Propriety of Making Second Action Final

The Examiner made the second Action final because she asserted that the applicant's amendment necessitated the new grounds of rejection. (Paper No. 8, page 7.) This is not true. For example, only the preamble of independent claim 12 was amended, and the Examiner indicated that she did not give the amended recitations in the preamble any patentable weight. (Paper No. 8, page 2.) Nonetheless, the Examiner rejected claim 12 (as well as independent claims 1 and 20) on new grounds. Since, in the case of claim 12, only the preamble was amended, and since the Examiner did not give such amended recitations patentable weight, but rejected claim 12 on new grounds, one must conclude that the amendments did not necessitate the new grounds of rejection. Accordingly, the finality of the second Action should be withdrawn.

Note that the applicant disagrees with the Examiner's position that the preamble of the claims should not be given patentable weight. Since the preamble of each of the independent claims provides antecedent basis for terms in the body of the claim, the preambles do not merely recite the purpose of a process, or the intended use of a structure.

Moreover, in the amendment filed on November 21, 2003, the applicant requested that the Examiner telephone applicant's attorney before any further action on the merits. Since this was not done, the applicant did not have an opportunity to make any amendments.

Rejections under 35 U.S.C. § 102

Claims 1, 12 and 20 stand rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 6,483,870 ("the Locklear patent"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Independent claims 1, 12 and 20 are not anticipated by the Locklear patent because the Locklear patent does not teach that if it is determined that accepted data concerns establishing a connection (or is not part of an existing session), then selecting one of the at least two communications links based on a policy. These claims are reprinted below with this feature depicted in bold typeface:

1. A method for use in a system at a premises, the system having at least one terminal, a local area network including the at least one terminal, and coupled with units terminating at least two communications links from the premises to a communications provider facility, the method comprising:
 - a) accepting data on the local area network;
 - b) determining whether the data accepted concerns establishing a connection or is part of an established connection;
 - c) **if it is determined that the data accepted concerns establishing a connection, then**
 - i) **selecting one of the at least two communications links based on a policy,**
 - ii) assigning the selected one of the at least two communications links to a session to be associated with the data accepted, and

- iii) forwarding the data accepted to the selected one of the at least two communications links; and
- d) if it is determined that the data accepted is part of an established connection, then forwarding the data accepted to the assigned communications link. [Emphasis added.]

Claim 12 (previously presented): A method for use in a system at a premises, the system having at least one terminal, a local area network including the at least one terminal, and coupled with units terminating at least two communications links from the premises to a communications provider facility, the method comprising:

- a) accepting data originating from the at least one terminal and from the at least two communications links; and
- b) forwarding data towards the at least one terminal and towards the at least two communications links,

wherein, upon receiving a session request from the at least one terminal,
i) assigning one of the at least two communications links based on a policy, and
ii) forwarding the session request to the assigned one of the at least two communications links. [Emphasis added.]

Claim 20 (previously presented): A link selection unit for use in a system at a premises, the system (i) including a local area network including at least one terminal and (ii) terminating at least two communications links from the premises to a communications provider facility, the link selection unit comprising:

- a) means for accepting data from the local area network;
- b) means for determining a connection state based on the data accepted;
- c) means for selecting one of the at least two

communications links when the means for determining a connection state determines that a connection has not yet been established; and

d) means for forwarding data to a selected one of the at least two communications links when the means for determining a connection state determines that a connection has already been established, and when the means for selecting one of the at least two terminated communications links selects one of the at least two communications links. [Emphasis added.]

The fact that the Locklear patent does not teach this feature is discussed below. First, however, the Locklear patent is briefly introduced.

The Locklear patent concerns modifying the number of XDSL modems (and their associated twisted pair lines) associated with a session. (See, e.g., the ABSTRACT.) Such modification is described as being in response to loading information and threshold information. (See, e.g., column 1, lines 45-51.) More specifically, the Locklear patent states:

An important technical advantage of the present invention is the establishment and maintenance of a communication session that includes at least one segment of communication between server 16 and device 12 using a modifiable number of twisted pair lines 22. In a particular embodiment, device 12 and/or server 16 monitor the loading information on active modems associated with the session, compare the loading information to threshold information on the modems, and add or remove lines from active service as needed. Adding twisted pair line 22 to active service when data traffic is heavy and removing twisted pair line 22 from active service when data traffic is lower allows device 12 and server 16 to operate at higher bandwidths only when needed. Such operation optimizes the use of XDSL modems in device 12 and server 16. [Emphasis added.]

Column 5, lines 53-67.

The Examiner relies on the above-quoted paragraph from the Locklear patent as teaching selecting one of at least two communications links based on policy if it is determined that data accepted on a local area network concerns establishing a connection. (See Paper No. 8, page 3.) However, the adding or removal of a modem is done with respect to an established session (an established connection), not with respect to establishing a connection (claims 1 and 20) or session (claim 12) where one does not exist. Accordingly, these claims are not anticipated by the Locklear patent for at least this reason.

Rejections under 35 U.S.C. § 103

Claims 2-11, 13-19 and 21-25 (and apparently claims 26-28) stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Locklear patent, in view of Mamakos, "A Method for Transmitting PPP Over Ethernet," Request for Comments 2526 (Internet Engineering Task Force (Feb. 1999)) ("the Mamakos RFC"). The applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection in view of the following.

The Mamakos RFC defines a PPPoE standard. However, this standard does not compensate for the deficiencies of the Locklear patent with respect to claims 1, 12 and 20. Accordingly, dependent claims 2-11, 13-19 and 21-25 (and 26-28) are not rendered obvious by the Locklear patent and the Mamakos RFC for the reasons discussed above with reference to claims 1, 12 and 20.

In addition, claims 4 and 5, each of which depends from claim 1, makes it clear that the establishment of a connection concerns the establishment of a session. As noted in the discussion of claim 1 above, the cited portion of the Locklear patent concerns adding or removing a modem for a previously established session. Thus, these claims more clearly distinguish the present invention over the Locklear patent and the Mamakos RFC.

In addition, claims 26-28, which depend from claims 1, 12 and 20, respectively, further specify that data looping in the system is prevented in the claimed methods or apparatus. The Examiner contends that the session tables,

described in column 9, lines 55-67 of the Locklear patent, prevent data looping. This is not correct.

The specification of the present application describes scenarios under which data looping may occur. Specifically, the specification states:

Recall from § 1.2.3.4 above that during a discovery stage of PPPoE, when a host (e.g., a terminal 1512) wants to establish a connection using PPPoE, it broadcasts a PPPoE Active Discovery Initiation (or "PADI") packet and one or more access concentrators may respond with a PPPoE Active Discovery Offer (or "PADO") packet. Due to the broadcast nature of the PPPoE Active Discovery Initiation (PADI) packets, each one of the ATU-R units 1516 will forward these packets and, consequently, receive PPPoE Active Discovery Offer (PADO) packets in response. When a response is received via one ATU-R, situations can result where the response is actually looped back to the other ATU-R. This would occur if the user's Ethernet hub is a repeatered hub which sends all Ethernet frames it receives on one port out every other port. In turn, the Ethernet frame will cause the ATU-R which inadvertently receives the Ethernet frame to update its bridging table so that it believes the ISP's access router is now on the home LAN. This follows since it examines the Ethernet frame and sees a source MAC address that belongs to the ISP's router arriving on the port it uses to connect to the repeatered hub. This means that no traffic will flow through this ATU-R until such time as it receives an Ethernet frame, via the DSL line that it terminates, from the ISP's router. Hence, the ability to utilize a second DSL line can be significantly hampered by the looping of received traffic from the ISP. [Emphasis added.]

Page 30, line 29 through page 31, line 23.

Although the session table 200 of the Locklear patent can identify sessions and associate each session with one or more virtual channels, the applicant fails to appreciate how this would prevent looping conditions, such as may occur when establishing a PPPoE session as described above. If the Examiner maintains this

ground of rejection, the applicant respectfully requests that the Examiner more clearly show how the session table and the cited passage of the Locklear patent prevent data looping. In view of the foregoing, dependent claims 26-28 are not rendered obvious for at least this additional reason.

Claim 29


Claim 29, which was added in the amendment dated November 21, 2003, was not addressed in the Office Action. In any subsequent actions, the applicant respectfully requests that the Examiner indicate whether or not this claim is allowable, and if not, specifically point out what references and passages the Examiner is relying on.

Conclusion

In view of the foregoing remarks, the applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, the applicant requests that the Examiner pass this application to issue. To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136(a) is hereby made, the fee for which should be charged to patent office deposit account number 07-2347. Please charge any other fees or credit any overpayments to that account as well.

Respectfully submitted,

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